



County of Los Angeles CHIEF EXECUTIVE OFFICE

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WILLIAM T FUJIOKA
Chief Executive Officer

December 27, 2007

To: Supervisor Yvonne B. Burke, Chair
Supervisor Gloria Molina
Supervisor Zev Yaroslavsky
Supervisor Don Knabe
Supervisor Michael D. Antonovich

From: 
William T Fujioka
Chief Executive Officer

Board of Supervisors
GLORIA MOLINA
First District

YVONNE B. BURKE
Second District

ZEV YAROSLAVSKY
Third District

DON KNABE
Fourth District

MICHAEL D. ANTONOVICH
Fifth District

USE OF COMPRESSED NATURAL GAS VEHICLES IN COUNTY OPERATIONS

On September 25, 2007, your Board approved a motion by Supervisor Antonovich which directed my Office, in conjunction with the Internal Services Department (ISD), the Department of Public Works (DPW), and the Sheriff's Department (Sheriff) to examine opportunities for expanded use of compressed natural gas (CNG) vehicles in County operations with special emphasis on buses, trucks, and waste collection vehicles.

The motion also instructed us to pursue the establishment of an agreement with the Metropolitan Transportation Authority (MTA) to allow refueling of County CNG vehicles at MTA fueling sites and to report back to your Board in 90 days with finding and recommendations.

Summary

A work group was formed to study this issue. It included representatives from my Office, ISD, DPW, Sheriff, Department of Community and Senior Services (DCSS), Department of Health Services (DHS), and Probation Department (Probation). The work group concluded that:

- It is feasible to expand the use of CNG vehicles in County operations, especially in the area of heavier, industrial vehicles.
- The MTA is agreeable to allowing the County to use its CNG fueling sites.
- The Board's Clean Fuel Policy should be revised to include CNG vehicles, as well as other alternates to gasoline powered vehicles.

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Based on the above, my Office and ISD will work together to draft a revision to the County Clean Fuel Policy to include CNG and other South Coast Air Quality Management District (SCAQMD) approved non-gasoline fuels and to formalize an agreement with MTA for use of their CNG fueling sites. These items will be submitted for your approval during the first quarter of 2008.

Additional details on our efforts are described in the remainder of this memorandum.

Description of CNG

Compressed natural gas is a substitute for gasoline or diesel fuel. It is made by compressing natural gas into a form that can be used as a fuel for internal-combustion engines. Most of the natural gas consumed in the United States is produced domestically, and the increased use of natural gas as an alternative to petroleum can reduce our nation's dependence on foreign oil imports. Natural gas is considered to be an environmentally "clean" alternative to gasoline and diesel fuels. It burns cleaner and reduces tailpipe emissions by up to 95 percent.

In a study of CNG and diesel by United Parcel Service delivery trucks, CNG trucks produced 75 percent lower carbon monoxide emissions, 49 percent lower nitrogen oxides emissions, and 95 percent lower particulate matter emissions than diesel trucks of similar age.

Other alternative fuels, such as liquefied natural gas and propane should also be considered as an alternative to diesel or gasoline. Both natural gas and propane offer reduced emissions, particularly carbon monoxide and nitrogen oxide, which are contributors to greenhouse gases, smog, and acid rain.

Current County CNG Fueling Capability

The County currently has a CNG fueling station at our Alameda Garage. The fueling site is run by Clean Energy and provides retail fueling to the public. The site has two dual hose dispensers, but is unable to service more than two large buses at one time. It provides service to taxi cabs, airport shuttles, and other smaller vehicles due to the limited number of dispensing stations and space. There are many retail CNG fueling sites within the County of Los Angeles, but they may not all be suitable for medium to heavy duty vehicles, such as buses and waste collection vehicles.

The MTA has fueling facilities that can fuel up to ten (10) buses at once and have spacious access with adequate turning radius for large heavy duty vehicles, such as buses.

South Coast Air Quality Management District Fleet Rules

The SCAQMD has established Fleet Rules that require public fleet operators, such as the County, to acquire vehicles with alternative-fuel or low-emitting gasoline engines when replacing existing vehicles. The goal of these guidelines is to reduce emissions within the jurisdiction of the District.

The SCAQMD also requires that public and private solid waste collection fleet operators purchase or lease alternative-fuel or pilot ignition heavy-duty vehicles when adding or replacing their solid waste collection vehicles to also achieve reduced emissions from diesel fuel.

The County has already begun the transformation of their fleet to cleaner burning vehicles as a result of efforts to comply with the SCAQMD's Fleet Rules. The addition of CNG vehicles is consistent with these efforts.

Expansion of CNG in the County Fleet

Internal Services Department, DPW, Sheriff, DCSS, DHS, and Probation met to develop recommendations to expand the use of CNG vehicles in County operations with particular emphasis on vehicles that are traditionally powered by diesel fuels. These include buses, shuttle vans, street sweepers, waste collection vehicles, and light, medium, and heavy duty trucks (except emergency or rescue vehicles). Each of these departments believe that they can incorporate CNG and other alternate fuel vehicles into their fleets, as long as fueling is available and there are natural gas/alternate fuel vehicles available with reliable maintenance support and warranties from the manufacturer's.

According to Natural Gas Vehicles for America and the California Natural Gas Vehicle Partnership, the life cycle costs for natural gas vehicles are lower than gasoline or diesel fueled vehicles. The key reasons why life cycle costs are lower:

- Natural gas is less expensive than petroleum.
- Maintenance costs are equal to or less than gasoline or diesel fueled vehicles.
- Federal and State incentives are available for natural gas vehicles, engines and fuel.

Compressed natural gas vehicles have been introduced in a wide variety of commercial applications, from light-duty trucks and sedans - like taxi cabs, to medium-duty trucks - like United Parcel Service delivery vans and postal vehicles, to heavy-duty vehicles like transit buses, street sweepers, and school buses. Currently, 22 percent of all new transit buses on order nationwide are natural gas powered.

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MTA Agreement for use of Fueling Sites

My Office and ISD staff met with a representative from the MTA to discuss the County's use of their fueling sites for our CNG vehicles. The MTA has ten (10) district yards that are geographically spread throughout the County of Los Angeles and have CNG fueling stations for light to heavy-duty vehicles. The MTA was agreeable to allowing the County use of their fueling sites. As such, a formal written agreement is being developed by ISD for County Counsel review. As indicated above, it is anticipated that an agreement will be ready for your Board's approval during the first quarter of 2008.

If you have any questions regarding this matter, please contact Dave Yamashita of ISD at (323) 267-2109, or via e-mail at dyamashita@isd.lacounty.gov.

WTF:DL
MN:os

c: Executive Officer, Board of Supervisors
County Counsel
Sheriff
Chief Probation Officer
Director and Chief Medical Officer of Health Services
Director of Community and Senior Services
Director of Internal Services
Director of Public Works